

**Hiding behind Geometry:
Analysis and Synthesis in Descartes and Spinoza**

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Descartes, Hobbes, and Spinoza are the three early modern philosophers who are most famous for their imitations of features of ancient geometry, that is, Euclid, though none of them seems to follow in Euclid's spirit. As Descartes writes in the Replies to the Second Objections to his *Meditations*, Euclidean synthesis, the gold standard against which Aristotle measured all modes of argumentation, is a method of compelling assent rather than a method of discovering the truth. Although I won't touch on Hobbes in this lecture, I believe that the level of disingenuousness and obscurity surrounding the use of synthesis by all three of these authors is not widely appreciated.

For an author so famous for both his pioneering of modern method and his emphasis on clarity and distinctness at least of perception, Descartes is remarkably ambiguous about what his method is in his most renowned statement on it, the *Discourse on Method*. The *Discourse* introduces his *Essays*, and one can gather a great deal more about what he means by analysis and synthesis from those *Essays* on Optics, Geometry, and Meteorology, especially the one on geometry, than from the *Discourse on Method*. Despite the greater clarity about the method evident in its application in the *Essays*, Descartes carried over some of his obscurity in the introductory *Discourse* to his *Essays*. Apparently, he was compelled to do so. In the final part of the *Discourse*, part 6, he explains how and why he decided not to publish his more comprehensive *The World*. (In comparison to the *World*, the *Essays* are piecemeal, avoiding anything like a clear portrait of . . . the world.) Descartes explains in part 6 of the *Discourse* that he wanted to avoid the fate of Galileo. Contrary to the impression modern scholarship brings to this inquiry, little becomes immediately apparent from a casual reading of the *Discourse*. Even if quite a bit is revealed by looking into the *Essays*, they are a mix of the mathematical and the physical. Consequently, they are or should be at least problematic for understanding what Descartes holds about method as it relates to his *Meditations on First Philosophy* or metaphysics. And Descartes gives hints that metaphysics is unlike math and physics in its methodological requirements even if he does not take this claim nearly as far as, say, Aristotle.

(In this lecture, I will refer frequently to Descartes's Replies to the Second Objections to his *Meditations*, which is a sort of tail following the *Meditations* that makes of the *Meditations* a much more medieval looking work than it would otherwise have seemed to be because it turns it into something of a disputation, and disputed questions were common among medieval Christian authors.)

In the Replies to the Second Objections, Descartes explicitly repudiates synthesis as a metaphysical method because it presupposes a ready grasp of the "primary notions." In contrast, in Spinoza's Ethics, which despite its title, begins as a work of metaphysics, he proceeds at least in part 1 synthetically—indeed, he doesn't turn to use analysis until he reaches the so-called "Physical Digression" following proposition 13 of part 2. Despite the elaborateness of the *Ethics*, Spinoza nowhere provides a methodological work comparable to Descartes's *Discourse*. That is, Spinoza nowhere gives a direct account of why he chose to use synthesis, despite Descartes's apparent repudiation of it for metaphysics.

A. Meyer's Preface to Spinoza's *Descartes's "Principles of Philosophy"*

The closest Spinoza gets to giving such an account is highly indirect. In one of the two works published during his lifetime, his *Descartes's "Principles of Philosophy,"*¹ Spinoza re-presents at least some of Descartes's *Principles of Philosophy*, a relatively comprehensive textbook or handbook, in synthetic fashion. (Descartes seems to have written the *Principles* with an eye to displacing the Scholastic textbooks still widely studied in universities. This may also help explain why he gave such a medieval cast to the *Meditations* and its objections and replies.) Spinoza delegated to Ludwig Meyer the task of writing the Preface to his *Descartes's "Principles of Philosophy."* As Meyer explains in that

¹ The other published work, his *Theologico-Political Treatise*, was published anonymously.

Preface, he requested that Spinoza re-present the *Principles* synthetically. And Meyer even quotes Descartes in the Replies to the Second Objections, explaining both the Euclidean features of synthesis and especially that it is suited to garnering assent “no matter how stubborn and contrary” the listener might be, thereby nearly paraphrasing Descartes’s assessment of synthesis both in the *Discourse* and the Replies to the Second Objections. This has struck Spinoza scholars as strange on a number of accounts. Edwin Curley has claimed that it is odd that Spinoza would present the *Principles* in this way, given that in the *Conversation with Burman* Descartes is supposed to have asserted that the *Principles* is already in synthetic form.² Indeed, Curley goes on to wonder, but “this would imply that Spinoza misunderstood Descartes’ distinction between analysis and synthesis.” That is, surely Spinoza would not go to the trouble of presenting in synthetic form a work already in synthetic form, unless he were confused about the differences between analysis and synthesis. It’s worth noting at least in passing that not all scholars agree that the *Principles* is in fact synthetic, despite the claims of the *Conversation with Burman*, a conversation of which some scholars question the value.³ So it is at least possible that both Curley and Burman didn’t understand the distinction, or, what I will try to show eventually, that Descartes was intentionally confusing about when, if ever, he was using synthetic method.

An additional thought must occur to any thoughtful reader of Meyer’s Preface, leaving aside the confusion surrounding method in Spinoza’s *Descartes’s “Principles,”* it’s important to question Curley’s leap to the conclusion that Spinoza didn’t understand the difference between analysis and synthesis as conceived by Descartes. After all, it was Meyer who requested that the *Principles* be put into synthetic form, which would seem then to raise questions about his understanding of analysis and synthesis. Yet it was Meyer who reviewed key differences between analysis and synthesis in the Preface to Spinoza’s

² Edwin Curley, ed. *The Collected Writings of Spinoza*, vol. 1 (Princeton: Princeton University Press, 1985), 224n1.

³ Daniel Garber and Lesley Cohen, “A Point of Order: Analysis, Synthesis, and Descartes’s *Principles*,” *Archiv für Geschichte der Philosophie* 64 (1982): 136-47, esp. 138.

Descartes's "Principles"! Could Meyer really be confused about the difference between analysis and synthesis, despite highlighting at least some of their differences? Now, some scholars have insisted that even though Spinoza read and approved Meyer's Preface, making alterations regarding other features of the Preface, Spinoza must have been confused about the difference between analysis and synthesis, since he signed off on the inclusion of Meyer's comments about it in the preface to the only work he published in his own name during his lifetime. I suspect an underlying reason Curley assumes that Spinoza was confused about these differences is that to agree that synthesis is intended to compel assent is to agree not only that what he is writing in *Descartes's "Principles"* but also and more importantly Spinoza's use of synthesis in the *Ethics* has this same purpose. As Richard Kennington notes, it makes sense that Spinoza would have published his *Descartes's "Principles"* in synthetic form because it compels the assent of the reader—and Spinoza himself does not agree with much that Descartes argued in the *Principles*.⁴ It would hardly then make sense for Spinoza to use a method of discovery such as analysis to present Descartes's *Principles*. It is almost as if Spinoza were demonstrating in writing *Descartes's "Principles"* what one can achieve in the way of persuading others of things whose truth one does not oneself really believe, but more specifically by means of the use of synthetic form. Of course, this leaves one wondering why Spinoza would have used synthesis in his own *Ethics*, assuming, as I believe we must, that he was well aware that synthesis is a method of compelling assent!

At this point, one might hope to turn to Descartes for some clarification of the distinction between analysis and synthesis. And it would be my preference as a lecturer to be able to clarify the distinction; however, as I already implied in my opening remarks, careful attention to the relevant texts yields little clarity. Let us begin, though, at least, with what can be determined with some clarity, before proceeding further into the bowels of obscurity. What is clear cannot be stated without reference

⁴ Richard Kennington, *On Modern Origins* (Lanham, MD: Lexington Books, 2004), 215-16.

beyond Descartes to Bacon. I apologize for adding to complexity here by bringing in yet another author; however, reference to Bacon will make it easier to state what is clear regarding analysis and synthesis.

B. The Baconian and Cartesian Attack on the Syllogism and Descartes's Pivot to Analysis in the *Rules and Essays*

Descartes does prefer analysis to synthesis as a means of discovery, at least in some sciences. In doing so, he is following out an attack on the syllogism first set forth by Bacon in his *Great Instauration* and *New Organon*.⁵ Without referring by name to Bacon, in his relatively early *Rules for the Direction of the Mind*, Descartes agrees with Bacon that the problem with the primary unit of synthesis, the syllogism, is that everything rests on the discovery of the middle term, that is, on the definable forms or natures of things (Rule 13).⁶ In so rejecting forms, Bacon set us on the path away from them toward modern laws of nature.⁷ Descartes's elaboration of analysis in the *Essays* is key to the emergence of said laws. And it is not too much of an exaggeration to say that he seals the fate of forms in his *Meditations*, when, as Richard Kennington has shown, in the opening two *Meditations* Descartes employs doubt to wipe away not only forms and natures but also the premodern reliance on opinion as a dependable starting point of inquiry.⁸

In turning away from forms or natures, Descartes is turning toward quantifiable relations in lieu of said forms. That this is Descartes's intent is evident as early as Rule 6 and confirmed in the *Essays*. The turn toward quantifiable relations depends on the use of the sort of analysis on display in the *Geometry*. In lieu of the middle term, Descartes seems to place the unit—a unit which, though absolute in one series, may well be relative in another (Rule 6). With the unit in hand, and two known quantities, one

⁵ Bacon, *New Atlantis and Great Instauration*, Jerry Weinberger ed., (Croft Classics, 1980, 1989), 21-3; *The New Organon*, Lisa Jardine and Michael Silverthorne, eds., (Cambridge: Cambridge University Press, 2000), aphor. 13-19, pp. 35-36.

⁶ If necessary, insert here the classic example of the syllogism highlighting the role of the **middle term**: All **men** are mortal. Socrates is a **man**. Therefore, Socrates is mortal.

⁷ Kennington, *Modern Origins*, 39-41.

⁸ Cf. Kennington, *Modern Origins*, 195 with 171, 176.

can of course discover a fourth unknown quantity, which we signify with some letter such as x , as Descartes already adumbrates in the Rules (Rules 13 and 14) and displays in the opening of the *Geometry*. Analysis due to its focus on quantification and relation is especially suitable to both mathematics and modern (that is, mathematical) physics. Of course, Aristotle, despite his recognition that the logical form of synthesis on the model of geometry is the gold standard of demonstrative argument, did not attempt to study natural beings in physics using number. Aristotle's refusal of this integration of math into physics flows from his focus instead on natures or forms.

With this broad background on the modern attack on the syllogism (that is, synthesis), the pivot to analysis, and the importation of number into math and physics, let us turn more directly to analysis. Is analysis applicable in any setting other than those that lend themselves to quantification—above all, is it suitable for metaphysics? Ultimately, I believe the answer to that question will be “no,” despite things Descartes says to the contrary. What then are we to make of the arguments regarding analysis, as a method of discovery, and synthesis, as a method of compelling assent? Here, I believe the parallels between Descartes and Bacon are very useful. Much as Bacon boosted “induction,” so Descartes boosted “analysis.” I must set aside the complicated task of attempting to explicate the meaning of “induction” in Bacon. It suffices for us that induction and analysis are both presented as the replacements or supplanters of syllogistic synthesis or, as it is often called, deduction. Yet the works in which the arguments are made against the syllogism and for induction or analysis employ if not demonstrative forms of synthesis like Euclid, then at least dialectical and rhetorical cousins of synthesis. Such forms of dialectic and rhetoric for promoting new methods are not limited to such promotion. Rather, I hope to show that Descartes may well use a mixture of synthesis (or old-fashioned demonstration), dialectic, and rhetoric in a work like the *Meditations* while passing it off as analytic—at least in part to promote the new method in the context of math and physics. To begin to show this, I

must wade once again into the waters of unclarity, that is, Descartes's various accounts of analysis and synthesis.

C. Descartes's writings on analysis and synthesis: *Discourse on Method*, Synopsis of the Second Meditation, Second Objections to the *Meditations*, Replies to the Second Objections

Very briefly, in the *Discourse on Method*, part two, Descartes renews the attack on the syllogism of the *Rules* as of little use “for learning [rather] than for explaining to others the things one already knows or even . . . for speaking without judgement about matters of which one is ignorant.”⁹ Then he touches on the virtues of the analysis of the ancients—which he had celebrated in Rule 4, as a secret method which they kept hidden behind a synthetic surface (AT 10: 372-4). And he touches on the virtues of modern algebra, while acknowledging some drawbacks even of analysis and algebra, only to conclude that he seeks “some other method comprising the advantages of these three subjects [syllogism or synthesis, analysis, and algebra] but free from their defects.” This extremely hazy declaration is then followed by his pronouncement of his famous four rules, which are so general as to find loud echoes back in the *Rules*. For our purposes, none of these rules clears up the sense that having previously championed analysis, he will now champion a hazier mixture of elements drawn from analysis, synthesis, and algebra. As I've already indicated and many of you have already seen, the *Geometry*, which follows the *Discourse* in the *Essays*, is quite clearly a mixture of analysis and algebra, excluding at least for the most part synthesis. What role synthesis might any longer be afforded is not obvious from the *Essays*, except the obvious derivative role that dialectic and rhetoric play in the promotional arguments for the method in the *Discourse*.

When we turn to the *Meditations*, we begin a journey into greater lack of clarity. Unlike the Scholastics who used distinctions to increase precision, eventually we will see Descartes introduce

⁹ Here I quote from the standard Cambridge University Press edition by Cottingham, Stoothoff, and Murdoch (hereafter, CSM; Cambridge UP, 1985), vol. 1.

further distinctions into the contrast between analysis and synthesis in a way that only seems to increase confusion. Very briefly, I will touch on the three discussions of method in the Synopsis of the Second Meditation, the Second Objections, and the Replies to the Second Objections.

In the Synopsis of the Second Meditation, Descartes states, “the only order (*ordinem*) which I could follow was that normally employed by geometers, namely to set out all the premises on which a desired proposition depends, before drawing any conclusions about it” (AT 7: 12-13; CSM 12). This reference to the “order [of the] geometers” appears to be a reference to synthesis, since analysis does not begin with the setting out of premises—though it may be intended to cover both synthesis and analysis, as we will see.

When we turn to the Second Objections, written or at least gathered by Mersenne (more on Mersenne later), we see that at least in the estimation of Mersenne or those whose comments he gathered, what Descartes has written in the *Meditations* has fallen well short of geometrical order. The Second Objections conclude, “it would be worthwhile if you set out the entire argument in geometrical fashion (*more geometrico*), starting from a number of definitions, postulates and axioms. You are highly experienced in employing this method, and it would enable you to fill the mind of each reader so that he could see everything as it were at a single glance, and be permeated with awareness of the divine power” (AT 7: 128; CSM 92). Here, Mersenne seems to be describing the experience that readers of Euclid have, together with a dash of pious genuflection. In Euclid’s *Elements*, as a work of geometry at least, synthesis has less the feel of a method of compelling assent, as Descartes and Meyer characterize it, than a method of making insights intuitively obvious. Perhaps that is because the “primary notions” in geometry can be immediately grasped, unlike physics, not to mention metaphysics.

When it comes time for Descartes to make good on Mersenne’s request, in his Replies to the Second Objections, he refers to the “geometrical manner of writing (*modo scribendi geometrico*),

namely, the **order (*ordinem*)**, and the method (or **form or manner**) of demonstration (***rationem demonstrandi***)” (AT 7: 155; CSM 110). In other words, he takes what Mersenne identified as one method, alluding clearly to synthesis, and he treats it as a genus of a geometrical way of writing which can be divided into an *ordo* and a *ratio*, that is, an order and a form or manner of writing or arguing.¹⁰

Descartes then appears to attempt to explain what the geometrical **order** is. It is a matter of making sure that one has “put forward first [what] must be known entirely without the aid of what comes later.” That synthesis always does this is obvious. (Here, Descartes seems at least to be starting out with “order” as he had used it in the Synopsis.) Whether analysis follows such order is less clear. After all, as a method of discovery, it does not start by defining principles, and it is characterized more by searching for a something which one does not yet know. It has about it an air of conjecture or hypothesis that we are familiar with from the modern sciences that would eventually derive in one way or another from Cartesian analysis. However, even in traditions that privilege synthesis, as did most of premodern Western philosophy, there are important exceptions to this order (that is, putting forward first what must be known entirely without the aid of what comes later), at least outside of mathematics. The most obvious example of an exception is what Descartes will seem to allude to only when he pivots to geometric form (*ratio*) rather than order (*ordo*). I refer to the very prominent role played by what was for centuries of the Latin tradition referred to as *a posteriori* argumentation, that is, arguing from effects back to causes. Such argumentation prevents one from employing synthesis strictly speaking. At least for Aristotle, though synthesis or apodictic demonstration was the gold standard, in works like the *Physics* and the *Metaphysics*, he is rarely in a position to inquire using synthesis in its pure form as inquiry from causes to their effects. Instead, he employs dialectic, starting with an interrogation of

¹⁰ Cottingham’s choice of “method” to translate “*ratio*” is not helpful. “Form” is the suggestion of Kennington (*Modern Origins*, 206) and “manner” is that of Curley (“Analysis in the *Meditations*: The Quest for Clear and Distinct Ideas,” *Essays on Descartes’ “Meditations,”* Amélie Oksenberg Rorty, ed. [University of California Press, 1986], 153-76, esp. 153.

received opinions and then turning to the effects which are first for us—rather than attempting to start with the causes, as one is able to do in mathematics. Here we’re reminded, on the one hand, of why geometrical order cannot but seem to be a reference to synthesis rather than analysis, despite Descartes’s *Geometry*. On the other hand, when Descartes pledges allegiance to geometrical order in the Synopsis of the Second Meditation, most readers familiar with his oeuvres would tend to assume that he has in mind the geometrical order of his analytic work, the *Geometry*. Already, synthesis appears to presuppose too much foreknowledge of the primary notions for it to be applicable to metaphysics, and analysis seems to presuppose a focus on quantification and relations unsuited to metaphysics. When Descartes first declared his intention to follow ‘geometrical order’ in the Synopsis, we thought we knew what he meant. But by now it has become obvious that at the time we did not (and still likely do not) know what he meant.

Having discussed *ordo* quite briefly in the Replies, Descartes then turns to the **form (*ratio*)** of demonstration (*Demonstrandi autem ratio*) and immediately subdivides it into analysis and synthesis. (It is worth noting that, when discussing geometrical “order,” since he did not make direct reference to analysis or synthesis, Descartes led us to believe that both should equally “put forward first what must be known entirely without the aid of what comes later.”) Descartes’s treatment of the “form” of demonstration is so vague and opaque that I will quote it at length and then attempt to make sense of it, noting in advance that the translator I quote, namely, John Cottingham, translator of what appears in the standard Cambridge UP edition, has two lengthy notes indicating that he too is far less than certain about what Descartes means:

Analysis shows the true way by means of which the thing in question was discovered methodically [*methodice*] and as it were *a priori* [it is here that JC inserts his first long note, after the following comma], so that if the reader is willing to follow it and give sufficient attention to all points, he will make the things his own and understand it just as perfectly as if he had discovered it for himself. But this method contains nothing to compel belief [*credendum impellat*] in an argumentative or inattentive reader; for if he fails to attend even to the smallest point, he will not see the necessity of the conclusion. Moreover there are many truths which—

although it is vital to be aware of them—this method often scarcely mentions, since they are transparently clear to anyone who gives them his attention.

Synthesis, by contrast, employs a directly opposite method [*viam oppositem*] where the search is, as it were, *a posteriori* (though the proof itself is often more *a priori* than in the analytic method) [and it is here that JC inserts his second long note, after the following period]. It [that is, synthesis] demonstrates the conclusions clearly and employs a long series of definitions, postulates, axioms, theorems and problems, so that if anyone denies one of the conclusions it can be shown at once that it is contained in what has gone before, and hence the reader, however argumentative or stubborn he may be, is compelled to give his assent [*assensionem extorqueat*]. However, this method is not as satisfying as the method of analysis [both uses of the term “method” here are interpolated from *viam* above into, *sed non ut altera satisfacit*], nor does it engage the minds of those who are eager to learn, since it does not show how the thing in question was discovered. (AT 7:155-56; CSM 110-11)

There is more to quote here but let us attend for now to the surprisingly unclear picture

Descartes here paints. Cottingham points us immediately to the troubling passages. The only technical terms used in this passage, aside from analysis and synthesis, are *a priori* and *a posteriori*. Characterizing analysis as *a priori* first, Descartes goes on to give an utterly vacuous explication of what he has in mind: “if the reader is willing to follow it and give sufficient attention to all points, he will make the things his own and understand it just as perfectly as if he had discovered it for himself.” The only thing that makes this smack of analysis rather than synthesis is the reference to “discovery.” But what is meant by “discovery” is not explained. Perhaps Descartes expects us to go back and rummage through the posthumously published *Rules* to understand what he means. But even were we to do that, it would not give us any purchase on what Descartes means in characterizing analysis as “*a priori*.” Regarding this opaque use of *a priori*, Cottingham acknowledges that Descartes’s use of it “corresponds neither with the post-Leibnizian sense” familiar to many from Kant (as that which is prior to experience in reality or to use an anachronistic term “ontologically” if not temporally) “nor with the medieval, Thomist sense,” which I already adumbrated as proceeding from cause to effect or from principles to conclusions. Cottingham speculates in a footnote to his translation, “What Descartes may mean [in referring to analysis as *a priori*]. . . is that it starts from what is epistemically prior, i.e. from what is prior in the ‘order of discovery’ followed by the meditator” (CSM 110n2). If this were the case, then starting from

the *cogito* would seem to be what Descartes has in mind to characterize analysis in the *Meditations*: the *cogito* is first in the order of discovery. Yet this merely leads to other questions. What relation if any is there between the clear picture we gain of analysis from the *Geometry* and the process in the *Meditations*? In the *Meditations*, what is the *x* that we seek to discover? What are the two known things, and what is the unit? One thing is certain: God cannot be the unit, since what serves as the unit may be absolute in one series while being relative in another. A quick reconsideration of the differences between the ancient syllogism and modern analysis reveals the following troubling fact: if God is central in the *Meditations*, one of the key effects of modern analysis through its displacement of forms and natures is to eliminate the anchoring of inquiry in the search for a first cause. Like Bacon before him, the method of analysis, at least as it is practiced in the *Essays* points away from the search for a first cause. Analysis like induction is about laws of nature in the modern sense, which describe quantifiable relations among quantifiable things, no longer about the search for a first cause.

Leaving these bigger questions aside, there are more immediate questions: Even if the turn to the *cogito*, as the turn to what is epistemically first, seems analytic, can any of the rest that follows in the *Meditations* be described as *a priori* in this sense of epistemically prior? Is the turn toward God to undergird the *cogito* a discovery? And when Descartes then pivots fully to his proofs of God are they analytic? As has been shown by many scholars, despite the great novelty of many of Descartes's claims about the idea of God, especially God's infinitude, and its role in proving God's existence, the order (or is it the form?!) of those three proofs of God's existence is either *a priori* or *a posteriori* depending on which one is referring to, according to the parlance of premodern thought against which Descartes was working.¹¹ Indeed, elements of his proofs are quite old, as he already hinted was likely to be the case back in the *Meditations*' Epistle Dedicatory to the Sorbonne (AT 7:3-4; CSM 4). Finally, it's worth noting

¹¹ See Edwin M. Curley, *Descartes against the Skeptics* (Cambridge: Harvard University Press, 1978), 125-6, 135-6, 141-2.

that this talk about what is epistemically prior brings to mind the Aristotelian distinction between what is first for us and what is first by nature. But that Aristotelian distinction at least presupposes the usefulness of recourse to generally accepted opinion. Descartes has clearly repudiated any such appeal to opinion in Meditations 1 and 2, before turning in Meditations 3 and 5 to the proofs of God's existence. The real meaning of Cottingham's "epistemically prior" then proves to be more than a bit challenging. By the end of this first quoted paragraph, we're far from confident about Cottingham's attempt to make sense of what Descartes means by characterizing analysis as *a priori*.

This unhelpful initial paragraph is then followed by the tortuous twists and turns of the next one. Much that Descartes says here about synthesis, its use of definitions, axioms, etc., squares with what we know of synthesis based on our experience with Euclid. But the opening sentence that synthesis "employs a directly opposite method [*viam oppositam*] where the search [*quaesitam*] is, as it were, *a posteriori* (though the proof [*probatio*] itself is often more *a priori* than in the analytic method)" leaves us tied in knots. Is the distinction between "search" and "proof" yet another distinction from that between order and form, between analysis and synthesis, and between *a priori* and *a posteriori*? What contrast does Descartes intend in claiming that though the "search [*quaesitam*]" is *a posteriori*, the "proof [*probatio*]" is often more *a priori*? If only "search," especially, and "proof," to a lesser extent, had clearer, more technical meanings, what Descartes had in mind might be somewhat more evident. Once again, Cottingham offers gingerly a suggestion about what Descartes "may mean" in suggesting that synthesis is more *a posteriori* in its "search," namely, that synthesis starts from premises "which are epistemically posterior . . . in the order of discovery" (CSM 111n1). It almost goes without saying that the sense in which synthetic proofs are more *a priori* fits with the premodern or Thomist sense that Descartes's readers would have been familiar with. If Descartes were really offering a new view of the *a priori/a posteriori* distinction as Cottingham suggests, one might have thought that Descartes as *the* thinker who emphasizes clarity and distinctness of perception and places a premium on the novelty of

his method would have insisted on being clearer about his method, unless he made a conscious decision to be opaque. I believe that the level of opacity of Descartes's prose here suggests that he is indeed consciously choosing to be opaque.

In the following paragraphs, Descartes affirms more clearly than he ever does in the *Meditations on First Philosophy* themselves that the method (*via*) he employed there is analysis. He justifies that claim by asserting that though synthesis is well suited to geometry because its primary notions "accord with the use of our senses," it is not suited to metaphysics—a claim I've already alluded to before. Yet he hesitates in making this claim. He writes,

In metaphysics . . . there is nothing that causes so much effort as making our perception of the primary notions **clear and distinct**. Admittedly, they are by their nature as evident as, or even more **evident** than, the primary notions which the geometers study; but they conflict with many preconceived opinions derived from the senses which we have gotten into the habit of holding from our earliest years, and so only those who really concentrate and meditate and withdraw their minds from corporeal things, so far as is possible, will achieve perfect knowledge of them. (AT 7:157; CSM 111)

Note here the tension between what Descartes argues about the 'clarity' of the primary notions as opposed to how "evident" they are. Wherein lies the implied distinction between "making clear and distinct" and "being evident"?

Leaving yet one more unclear dichotomy to the side, one of the most obvious differences between the *Meditations* and nearly every other work of metaphysics ever written, with the possible exception of Thomas Aquinas's *De ente et essentia*, is its length. I can think of no other work that has had so much effect but rested on so little argumentation. (Here, it's worth considering Heidegger's denial that Descartes was seriously innovative in his metaphysics, arguing instead that he was quite derivative from his medieval predecessors.) This fact of the *Meditations* brevity is directly connected to what I consider to be one of its most important novel features, namely, Descartes's reliance on the clarity and distinctness of our perception of the idea of God to prove that God exists. This move enables

Descartes to vault himself over the tasks of explaining what he means by substance and being¹²—thus Heidegger’s complaints—not to mention really proving God’s existence, which in many works of metaphysics take place only after hundreds of preceding pages of argument such as in Aristotle’s *Metaphysics*. (It’s worth noting here that the brevity of Thomas’s *De ente* derives from the fact that it adds very important and novel distinctions to Aristotle’s, but it does not wholly reconceive philosophy, as does Descartes, even if only implicitly in the *Meditations*.) Though the *Meditations* achieves a radical transformation in a short span, Descartes also never really attempts to prove the clarity and distinctness of our idea of God. It is merely assumed. All this leaves one doubting how serious Descartes is being when he acknowledges in the Replies to the Second Objections that it is the difficulty of grasping the primary notions of metaphysics that precludes the use of synthesis.

It is at this point that we cannot but start to wonder whether Descartes is sincere in claiming that the *Meditations* are analytic. Could it be that he claims this to lend rhetorical support to the use of analysis in math and physics? One thing seems likely: we should not take Descartes’s word for it that the *Meditations* is truly analytic. Even back in the *Discourse on Method* we were led to believe that his method would be some sort of hodgepodge of analysis, synthesis, and algebra. Could it be that Descartes must insist that the *Meditations* is analytic especially in the face of a demand like Mersenne’s in the Second Objections that Descartes produce a synthetic version of the arguments of the *Meditations*? Might not Mersenne’s request for a synthetic version of the *Meditations* boost the air of discovery about that work—thus further encouraging generation after generation of metaphysicians to dispute about the depths of the *Meditations*?

An odd structural similarity exists between the situations of Descartes and Spinoza, which I believe undercuts the widely held view that Descartes knew what he was about regarding analysis and

¹² See Kennington, *Modern Origins*, 165.

synthesis, while Spinoza was confused. Descartes was asked by his unique booster and ally Mersenne to present the *Meditations* in synthetic form—a work that may well already have synthetic features, despite Descartes's own assertions against synthesis in the *Reply to the Second Objections*. Spinoza was similarly asked by his unique booster and ally Meyer to present Descartes's *Principles of Philosophy* in synthetic form—a work that at least according to the *Conversation with Burman* was already synthetic. Both Descartes and Spinoza had many admirers and correspondents, but both also had only one correspondent who was much more than that. Each of these correspondents, Mersenne and Meyer, was on relatively intimate terms with his respective philosopher, and each was far more than a dabbler in philosophy, even if far from the rank of the philosopher he assists. The significance I attach to these parallelisms is that it seems extremely unlikely that both of these followers made these requests to their respective geniuses wholly unprompted. (Indeed, Meyer's Preface almost makes it sound as if he had asked Spinoza to render Descartes's *Principles* synthetically. Yet he also implies that Spinoza had already done so on his own initiative!)¹³ One thing is certain: these requests provided an opportunity to make more confusing rather than clearer what the true methodological statuses are of the *Meditations*, the *Principles*, and the approach of both thinkers to metaphysics.

But why? That is, what purpose could all this obscurity serve? Why pass off the *Meditations* as more of a work of discovery or analysis than it really is? And what should we make of the fact that the *Ethics*, especially part 1, is primarily synthetic and primarily intended to compel assent? In the case of the *Meditations*, I believe that Descartes wants the majority of his audience to believe that they're engaged in discovery not only to bolster the status of discovery practiced elsewhere by Descartes—that is, I believe that he intends the *Meditations* as something of a defense of philosophy, as it is practiced in his physical inquiries—but also to bolster the status of the *Meditations*, as if it were a radically new form

¹³ See Curley, *Collected Works of Spinoza*, vol. 1, p. 227. And cf. Kennington, *Modern Origins*, 215,

of philosophy worthy of unprecedented attention. For those intrepid enough to see past the insinuations of discovery, the most thoughtful reader is challenged to read the *Meditations* with extreme care and attention to its use of synthesis, dialectic, and rhetoric.

In the case of the *Ethics*, I believe that Spinoza wants the majority of his audience to adopt new views about God or Nature before they realize they've adopted them. He uses synthesis to compel assent to a new conception of God by reconceiving definitions of key terms such as substance, attribute, and mode. The typical reader on Spinoza's time who picks up the *Ethics* brings certain primarily medieval preconceptions about what is God and the meaning of these key concepts. Spinoza relies on these preconceptions as his point of departure. These are the "primary notions" that his audience brings without clarity and as baggage. Spinoza uses synthesis to compel assent to a new understanding of the primary notions—in effect "deconstructing" (please forgive my use of this overused word) their understanding of these key concepts.

At least in the case of Spinoza, if one wanted to approach his philosophy in a more hospitable way, one might want to consider studying his *Theologico-Political Treatise* first or rather than the *Ethics*, because the TPT sets forth the aims even of the *Ethics* far more directly: namely, to displace the authority of both the Bible and the prevailing revealed theologies and to establish the right to inquire freely. Even though the TPT is not a purely analytic writing, by steering clear of insincere imitation of Euclid, Spinoza gives the novice a better chance of understanding his ultimate aims.